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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/675,622	09/29/2000	Arvind Kumar	42390P9709	9572

7590 12/03/2003

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EXAMINER

PRIETO, BEATRIZ

ART UNIT	PAPER NUMBER
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2142

DATE MAILED: 12/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/675,622

Applicant(s)

KUMAR, ARVIND

Examiner

B. Prieto

Art Unit

2142

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 September 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4a-b. 6) ☐ Other: \_\_\_\_\_

***DETAILED ACTION***

1. This communication is in response to Application No. 09/675,622 filed 09/29/00, claims 1-25 have been examined.
2. Drawings filed 09/29/00 have been approved by Draftsperson.
3. In regards to the specification, particularly to the structure of its content, it is noted that the specification lacks a Brief Summary of the Invention (see MPEP§ 608.01(d)). A preferred layout and content of the specification is provided by the MPEP (see MPEP§ 6.01-6.02). A brief summary of the invention should be separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The purpose of the brief summary is to apprise the public and those interested in the particular art to which the invention relates, of the nature of the invention.

***Claim Rejection***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 1-25 are rejected under 35 U.S.C. 102(e) as being anticipated by GAO U.S. Patent No. 6,581,094.

Regarding claim 1, Gao teaches substantial features of the invention as claimed, teaching a system/method (Fig. 1) comprising:

formulating a discovery information query (Gao: computers (22a & 40 of Fig. 1) having respective web Browsers (30 & 50 of Fig. 1) perform standard query searches “discover information query”, i.e. a query to server (60 of Fig. 1) having search module (80 of Fig. 1) see col 4/lines 45-64, and col 3, lines 42-47, for discover information see col 5/lines 1-13);

sending said discovery information query to an extensible markup language (XML) based search engine to search for discovery information of a network device (90 of Fig. 1, digital appliances see col 3/lines 62-col 4/line 4) (Gao: search engine XML enabled see col 5/lines 1-13, browser sends query to search engine 80 of Fig. 1 see col 14/lines 1-15).

Regarding claim 2, further comprising retrieving discovery information from a discovery document on the network device (Gao: retrieve information “discovery information” in the form of a XML file “discovery document” via web browsers (30 and 50) see col 4/lines 45-64, each device may store it’s unified device descriptor XML file (UDD) see col 5/lines 8-9 and col 4/lines 2-3).

Regarding claim 3, manipulating the retrieved discovery information (Gao: update or upgrade retrieve UDD file data see col 14/lines 25-32, selected UDD file for retrieval and respective processing for rendering display, i.e. “manipulating” see col 3/lines 48-61, searchable UDD file via a web browser 50 see col 4/lines 45-64).

Regarding claim 4, displaying the manipulated discovery information (Gao: deliver for display selected UDD file “information” see col 3/lines 48-54, XML based document displayable on any device see col 4/lines 18-22, display of retrieved UDD file see col 11/lines 25-36 and Fig. 3).

Regarding claim 5, a machine-readable medium that provides instructions, which when executed by a machine, cause said machine to perform operations comprising:

searching for discovery information of at least one network device using an XML based search engine (Gao: discover information using a search engine XML enabled see col 5/lines 1-13 and col 4/lines 45-64).

Regarding claim 6, formulating a discovery information query to be sent to the XML-based search engine (Gao: standard search via browsers see col 4/lines 45-64 and search engine XML based see col 5/lines 1-13).

Regarding claims 7-9, this claim is the machine-readable medium that provides executable instructions to perform the method associated with the retrieving, manipulating and displaying limitations discussed on the method claims 2-4, therefore same rationale of rejection is applicable.

Regarding claim 10, further includes a system (Fig. 1) comprising:

means for searching for discovery information of a network device using an XML based search engine (Gao: web browser (30/50 of Fig. 1) on computers (22a/40 of Fig. 1) using standard searching technology are configured to discover information (display of Fig. 3) of a network device (90 of Fig. 1) by accessing a search engine (80 of Fig. 1) XML enabled on server (60 of Fig. 1) see col 4/lines 45-64, col 3/lines 42-47, col 5/lines 1-13 and col 14/lines 1-32).

Regarding claim 11, means for formulating a discovery information query (browser 30/50 of Fig. 1) to be sent to the XML based search engine (Gao: col 4/lines 45-64 and col 14/lines 1-32).

Regarding claim 12, means for retrieving discovery information (browser 30/50 of Fig. 1) from a discovery document on the network device (Gao: col 4/lines 45-64 and col 14/lines 1-32, retrieve for displaying information on the network device see col 3/lines 33-54).

Regarding claim 13, means for manipulating the retrieved discovery information (Gao: col 14/lines 1-32, browsers 30/50 of Fig. 1).

Regarding claim 14, means for displaying the manipulated discovery information (Gao: display 26 means col 3/lines 48-54).

Regarding claim 15, a network device including XML based discovery information (GAO: appliance 90 including UDD file see col 4/lines 2-3, file in the XML form see col 4/lines 45-54).

Regarding claim 16, said XML based discovery information is in the form of an XML file stored on said network device (Gao: UDD including XML file having network device information col 4/lines 45-54, UDD file stored on the network device see col 5/lines 8-9).

Regarding claims 17-22, although the prior art teaches the network appliances ("devices") may be a printer or a personal digital assistant (i.e. a computer), and a copier (i.e. a printer), and the like (Gao; see col 3/lines 62-col 4/line 4, server and computers see col 7/lines 56-64), Gao does not explicitly teach wherein the network devices further include a router and a switch.

Official Notice (see MPEP § 2144.03 Reliance on "Well Known" Prior Art) is taken that switches and routers were old and well-known components in the networking environment. It would have been obvious to one of ordinary skill in the art at the time the invention was made, given Gao's suggestion that the networked environment illustrated includes the Internet and that therefore would include a large number of the component shown and other circuits and devices well know to this configuration and which are apparent to one skilled in the art. Routers and switches would be readily apparent and inherent in Gao's Internet based networked environment. One ordinary skilled in the art would be motivate to include other type of network devices e.g. routers/switches, those inherent in an Internet based networked system and other new type of devices/appliance which Gao suggest can be accommodated in the definition of UDD. An exemplarily reference is also presented below as pertinent prior art.

Regarding claims 23-25, wherein the XML based discovery information includes data describing the capabilities, location, i.e. geographic information, characteristic, features of the network device (Gao: information includes see col 4/lines 45-54, col 5/lines 39-54, device type see table I, lines 1-10).

**Pertinent Prior Art:**

6. The following prior art made of record and not relied upon are considered pertinent to applicant's disclosure; pertinence is presented in accordance with MPEP§ 707.05. Copies of documents cited will be provided as set forth in MPEP§ 707.05(a):

A. U.S. Patent No. 5,473,599 (12-1995)

Li et. al. discusses an ICMP Router Discovery Protocol among routers and switches as an example a dynamic protocol for discovering and keeping track of the network devices available, particularly routers/switches.

B. U.S. Patent No. 6,466,971 (10-2002)

Hunpleman et. al. teaches where a first device can query the application interface description data in other second devices via a communication network, the application interface description being stored in a database for the first device to access. The application interface description data includes the capabilities data for identifying the capabilities of the second device and is structured in the XML format. This implementation is used to discover various devices such as servers, appliances, e.g. DVCR as well as multi-purpose, multi-application devices such as computers connected to the network, includes devices that have the ability to exchange data as well as home devices and general purposes computers.

C. ISO/IEC JTC SC 25WG1 N 887, Interconnect of Information Technology Equipment Home Electronic Systems, Title: VESA home Network Architecture, Nov. 11, 1999, pages 1-27.

Directory services and Device Discovery: Devices connected to the home network and the application operating over the home network are enabled to locate each other using application-specific or network specific mechanisms. The VESA Home Network layer discovery mechanism, including a DHCP interface to the Web control paradigm uses HTML/XML documents. The discovery mechanism generates a device page at a predefined location, thus the device becomes visible, useable and controllable. Devices are discovered through the use of the User control browser.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prieto, B. whose telephone number is (703) 305-0750. The Examiner can normally be reached on Monday-Friday from 6:00 to 3:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's Supervisor, Jack B. Harvey can be reached on (703) 305-9705. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3800/4700.

Any response to this action should be mailed to:

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or faxed to the Central Fax Office:

(703) 872-9306, for Official communications and entry;

Or Telephone:

(703) 306-5631 for TC 2100 Customer Service Office.

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington  
VA, Fourth Floor (Receptionist), further ensuring that a receipt is provided stamped "TC 2100".



B. Prieto  
TC 2100  
Patent Examiner  
November 30, 2003